

CLAIMS:

1. A method of making a catalyst including the steps of:
 - mixing
 - 1) an alcohol;
 - 2) a titanium alkoxide; and
 - 3) a binderin the presence of a catalytic acid to form a first mixture
 - heating the first mixture at a temperature at least equal to 100°C for at least 2 hours to form a second mixture; and
 - calcinating the second mixture at a temperature at least equal to 450°C for at least 2 hours.
2. The method of Claim 1, wherein the alcohol is selected from the group consisting of isopropanol and ethanol.
3. The method of Claim 1, wherein the titanium alkoxide is selected from the group consisting of titanium isopropoxide and titanium butoxide.
4. The method of Claim 1, wherein the binder is selected from the group consisting of polyethylene 200, polyethylene 400, polyethylene 600 and a mixture of tetraethoxysilane and water.
5. The method of Claim 1, wherein the molar ratio of alcohol : titanium alkoxide : binder is about 1:12:10 to 1:20:10.
6. The method of Claim 1, wherein catalytic acid is selected from the group consisting of concentrated hydrochloric acid and concentrated nitric acid.
7. The method of Claim 6, wherein the catalytic acid is in an amount of 1.3 to 3.6 weight percent with respect to the titanium alkoxide.
8. A catalyst manufactured by the method of any one of Claims 1 to 7.